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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,999	01/30/2001	Manabu Komatsu	R2184.0093/P093	8479
24998	7590	08/18/2006	EXAMINER	
DICKSTEIN SHAPIRO LLP			PARK, CHAN S	
1825 EYE STREET NW			ART UNIT	
Washington, DC 20006-5403			PAPER NUMBER	
			2625	
DATE MAILED: 08/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,999

Applicant(s)

KOMATSU, MANABU

Examiner

CHAN S. PARK

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-19, 22-28 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 20, 21 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

DOUGLAS Q. TRAN
PRIMARY EXAMINER

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 6/5/06, and has been entered and made of record. Currently, **claims 16-32** are pending.

Response to Arguments

2. Upon review of the reference of Bollman (U.S. Patent No. 6,778,684), which was cited in the Office Action dated 3/3/06 under 35 U.S.C. 102(e), as being anticipating claims 1, 3-6, 11 and 14, the examiner notes that the reference can still be interpreted as anticipating the claims, as currently amended.

Particularly, as amended, claim 16 now requires the drawing object type in addition to the drawing object attribute and the background color information. Referring to the Original Specification filed on 1/30/01 wherein on page 13, lines 16-22, the applicant describes what the claimed drawing object type is (character, graphic code or raster graphic data). The examiner notes that Bollman clearly teaches the method of determining a type of a drawing object (fig. 3). That is, the system determines whether the received image data is character data (col. 4, lines 51-58). Further, it determines whether the received image data is line data (col. 4, lines 59-65). Further, it explicitly determines the type of the image data (col. 5, lines 6-14). The step of determining the drawing object attribute (color of the character code in S672) and the background color information (color of the background in S672) is also clearly taught.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 16, 18, 19, 25, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Bollman U.S. Patent No. 6,778,684.

3. With respect to claim 16, Bollman discloses an image processing apparatus for converting an input image signal into a control signal including a plurality of output color factors of an image forming apparatus (col. 4, lines 40-49), said image processing apparatus comprising:

an object determining part determining a type (S650~S760) and attributes (S672) of a drawing object from the input image signal;

a background color information extracting part extracting background color information corresponding to a determination result of the object determining part from the input image signal (S672); and

a color converting part conducting a color conversion with respect to the input image signal based on the type and attributes of the drawing object and the background color information (col. 5, lines 41-56).

4. With respect to claim 18, Bollman discloses the image processing apparatus as claimed in claim 16, wherein the type of the drawing object is one of character code, graphic code, and raster graphic data (determining the character data in S650~S760).

5. With respect to claim 19, Bollman discloses the image processing apparatus as claimed in claim 16, wherein the attributes of the drawing object include at least one of a type, a size, and a thickness (color type in S672 and further, the thickness of the line data must be included for displaying/printing).

6. With respect to claim 25, arguments analogous to those presented for claim 16, are applicable.

7. With respect to claim 27, arguments analogous to those presented for claim 18, are applicable.

8. With respect to claim 28, arguments analogous to those presented for claim 19, are applicable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bollman in view of Bottou et al. U.S. Patent No. 5,900,953 (hereinafter Bottou).

9. With respect to claim 17, Bollman teaches the method as claimed in claim 16, but it fails to teach expressly that the background information indicates an average of background colors in the area where said drawing object is formed.

Bottou, the same field of endeavor of color image processing, teaches a method of determining background and foreground and calculating an average of background colors in an area where foreground object is form (col.3, lines 25-41).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to implement the average calculating method of Bottou into the color image processing system of Bollman.

The motivation/suggestion for doing so would have been to provide a faster foreground/background convergence process (col. 3, lines 56-57 of Bottou).

Therefore, it would have been obvious to combine Bollman with Bottou to obtain the invention as specified in claim 17.

10. With respect to claim 26, arguments analogous to those presented for claim 17, are applicable.

Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bollman in view of Wang et al. U.S. Patent No. 6,636,628 (hereinafter Wang).

11. With respect to claim 22, Bollman discloses an image processing apparatus for converting an input image signal into a control signal including a plurality of output color factors of an image forming apparatus (col. 4, lines 40-49), said image processing apparatus comprising:

- an object determining part determining a type (S650~S760) and attributes (S672) of a drawing object from the input image signal;

- a background color information extracting part extracting background color information corresponding to a determination result of the object determining part from the input image signal (S672); and

- a color converting part conducting a color conversion with respect to the input image signal based on the type and attributes of the drawing object and the background color information (col. 5, lines 41-56).

Bollman, however, does not disclose explicitly a color compensating part conducting a compression mapping from the input image signal to a color reproduction range of the image forming apparatus based on the type of the drawing object and the background color information.

Wang, the same field of endeavor of color image processing, teaches a color reproduction method comprising a step of correcting a color, in an input image, located outside of a color reproduction range of said color image forming apparatus to another

color located inside of the color reproduction range (col. 4, lines 11-13 and col. 6, lines 15-16).

Wang further teaches the color correcting step controls a direction to compress and map a color, in said input image, located outside of said color reproduction range to another color located inside of said color reproduction ranges (col. 4, lines 64-67 and col. 6, lines 37-63).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to implement the color correction method of Wang into the image processing control method of Bollman.

The motivation/suggestion for doing so would have been to enhance the features of the image to be generated/printed by correctly converting the input color data into the color data which the printer can read (col. 1, lines 36-40 of Bollman and printer gamut in col. 6, lines 61-62). Further, when the color data is controlled in step (a) based on the image type and the background information and the data is to be sent to a printer 210 of Bollman, one would have been motivated to implement the color compressing and mapping method of Wang to provide a correct color data to the printer.

Therefore, it would have been obvious to combine Bollman with Wang to obtain the invention as specified in claim 22.

12. With respect to claim 24, the combination of Bollman and Wang teaches the method as claimed in claim 22, wherein Wang further teaches the color correcting step controls a direction to compress and map a color within a range from a direction maintaining a hue and a brightness to another direction maintaining a saturation (col. 6,

lines 33-35). Additionally, Bollman also teaches the method of controlling the brightness of the image (col. 5, lines 57-62).

13. With respect to claim 30, arguments analogous to those presented for claim 22, are applicable.

14. With respect to claim 32, arguments analogous to those presented for claim 24, are applicable.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bollman and Wang as applied to claim 22 above, and further in view of Bottou.

15. With respect to claim 23, the combination teaches the method as claimed in claim 22, but it fails to teach expressly that the background information indicates an average of background colors in the area where said drawing object is formed.

Bottou, the same field of endeavor of color image processing, teaches a method of determining background and foreground and calculating an average of background colors in an area where foreground object is form (col.3, lines 25-41).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to implement the average calculating method of Bottou into the color image processing system of Bollman.

The motivation/suggestion for doing so would have been to provide a faster foreground/background convergence process (col. 3, lines 56-57 of Bottou).

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 23.

16. With respect to claim 31, arguments analogous to those presented for claim 23, are applicable.

Allowable Subject Matter

17. **Claims 20, 21 and 29** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

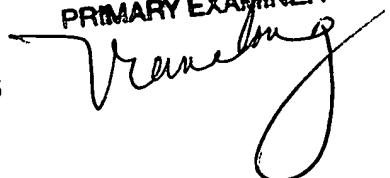
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571) 272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

csp
August 8, 2006

DOUGLAS Q. TRAN
PRIMARY EXAMINER


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Examiner
Art Unit 2625

